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SHOULD COST OVERHEAD STUDY ANALYSIS:
AN EXAMINATION OF SELECTED STUDIES

by

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December 1988

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Should Cost Overhead Study Analysis:
An Examination of Selected Studies

by

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requirements for the degree of

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December 1988

ABSTRACT

Should Cost analysis has become a standard tool for the Government to achieve cost reasonableness in a negotiated contract. Recently, contractors in the Defense Industry have begun to question the effectiveness of this analytical process and the necessity of its use. This thesis examines the Should Cost process, its implementation in the area of overhead cost analysis, and analyzes the effectiveness of three specific Overhead Should Cost studies and the impact of those studies on the contractors.

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I. INTRODUCTION

A. AREA OF RESEARCH

Should Cost analysis has become a standard tool for the Government to achieve cost reasonableness in a negotiated contract. Recently, this analysis technique has come under question by government contractors as to its validity and the necessity for its use. Of particular interest is the area of contractor overhead costs; due to the amount of dollars associated with this area of contracting. This research will examine the Should Cost concept, its implementation in the area of overhead cost analysis, and analyze the Should Cost effectiveness as it relates to recommendations and actions taken by the contractors.

This research will be accomplished by analyzing three separate Overhead Should Cost studies selected from studies performed in fiscal years 1985 and 1986.

B. RESEARCH QUESTIONS

1. Primary Research Question:

How effective has the Government been in the selection and execution of Overhead Should Cost studies?

2. Subsidiary Research Questions:

a. Were selected Overhead Should Cost studies performed and negotiated by the Government in the most effective manner?

b. What has been the effect of the studies on relations between the Government and the contractor?

c. How might the Should Cost studies be improved as an analytical tool in support of contract negotiations?

C. OBJECTIVE

The objective of this research is to examine and answer these questions. By doing so, a qualitative insight will be provided for the military services and acquisition managers as to the effectiveness of Should Cost studies; particularly in the overhead cost arena. This analysis may further the productive use of the Should Cost study.

D. SCOPE OF THESIS

The research will focus on reviewing the Should Cost concept and the key issues involved in three overhead Should Cost studies. These studies were conducted at Hughes Corporation, Fullerton, CA; Sperry Corporation, Great Neck, NY; and Lockheed Corporation, Sunnyvale, CA. The study will examine team makeup, relations fostered by the studies, effects of the studies on negotiations, motivation of contractors to implement recommendations, follow-up considerations, and impact of the studies. The study will not examine other Should Cost efforts, but will deal strictly with the three studies indicated.

E. METHODOLOGY

The Research data were collected from the reports of the Should Cost analyses at each contractor site. Interviews were conducted with the individuals representing the contractor at each site, the team leaders representing each Government on-site contracting office (NAVPRO Lockheed, NAVPRO Sperry, and DCASPRO Hughes), and Government team leaders for each Should cost study. They were queried about the Should Cost analysis performed and whether or not the study resulted in any substantial cost benefit to the contractor, and/or savings to the Government. Questions included:

1. Industry:

a. How does your industry view the Should Cost analysis?

b. What important issues are germane to the Should Cost analysis?

c. What were the key problems encountered between industry and the Government during the Should Cost analysis?

d. What do you see as the benefits to the Should Cost analysis as it was performed?

e. Which of the Should Cost study recommendations were implemented, which were not implemented, and why?

f. Were you motivated to make the changes recommended?

g. Did the study foster better relations between your industry and the Government?

h. How should the study be changed?

2. Government

a. How were the personnel used in the study selected?

b. What were their qualifications to analyze the particular area assigned in the study?

c. How did the Government plan to use the results of the study in negotiations?

d. How does the Government motivate the contractor to implement the recommendations of the study?

e. Was follow-up action necessary or desired, to assure compliance with the recommendations?

f. Did the study foster better relations between the Government and the contractor?

g. How should the study be changed?

F. ORGANIZATION

Chapter I defined the research problem and its importance. The objective, scope, and methodology of the thesis was also presented. Included in this chapter were basic interview questions for industry and Government that will serve as the framework for analysis of the three Should Cost studies presented.

Chapter II presents the issue of Should Cost analysis as it applies to the acquisition process.

Chapter III presents the three Should Cost studies, and the background and environment surrounding the studies.

Chapter IV will focus upon key issue areas of each Should Cost study. Particular emphasis will be upon the response of contractor and Government persons interviewed, towards the Government's performance of those studies.

Chapter V presents analysis of key issues developed through research and interviews with Government and contractor personnel.

Chapter VI provides conclusions based upon findings and recommendations regarding the use of the Should Cost process. Areas of study that warrant further research are also identified.

G. LIMITATIONS

The study was somewhat limited by information not specifically made available to the researcher in each Should Cost study. These data were limited due to the confidential nature of some of the cost and pricing data in the studies.

II. BACKGROUND

A. INTRODUCTION

With the current political and public concerns over the budget deficit and defense spending in particular, more and more emphasis is being directed toward saving money in the defense procurement arena. The recent discoveries of cost overruns and enormous cost growth in the defense market, has caused the Government to seek cost savings at every opportunity [Ref. 1:p. 2]. Additionally, it appears there will be fewer defense dollars to spend in the coming years [Ref. 2:p. 2]. All agencies of the Government should act uniformly to improve their stewardship of these funds. It is to this end that the concept of Should Cost is to be explored.

B. THE SHOULD COST CONCEPT

The Should Cost concept began in the civilian economy. A large, national chain of consumer-use goods used the technique for a number of years when dealing with the suppliers of its appliances, hardware, and other goods [Ref. 3:pp. 1-5]. The use and application of the Should Cost concept resulted in significantly and consistently lower prices from these suppliers. The use of the Should Cost analysis encouraged those suppliers to constantly improve their operations by manufacturing their products in the most

economical ways, in order to retain the large product orders from this national chain. Due to the retail chain's large size, the Should Cost concept was an effective hammer to use over their suppliers. [Ref. 3:pp. 1-5]

A departure from the traditional method of contract price analysis used by the military occurred in 1968, when a Navy procurement team used a new method of cost analysis to achieve substantial savings on a fixed price contract for aircraft engines. This new technique saved the Government over \$100 million and became popularly known as a type of cost analysis called "should cost." [Ref. 4:p. 4]

The Should Cost technique is a vigorous form of cost analysis that evaluates the prime contractor and subcontractors' proposals and plant operations, on a highly coordinated basis, to identify potential cost savings due to uneconomical operations. The methodology of the analysis is to determine what the contractor's cost ought to be in the various production areas.

The Should Cost analysis team is usually made up of specialists in engineering, pricing, audit, Government procurement, and management. These specialists review in great detail the contractor's engineering and manufacturing operations, cost estimating procedures, accounting procedures, purchasing procedures, make-or-buy decisions, organization structure, and any elements required for cost

and management control of the procurement system. [Ref. 3:pp. 1-2]

The purpose of the in-depth analysis is not only to identify the contractor's uneconomical procurement practices, but to give the Government a negotiation position that will support the contracting officer's responsibility to achieve a fair and reasonable contract price [Ref. 3:p. 20]. This short term benefit is coupled with the longer term advantage of achieving a more efficient and economical contractor operation, which will translate into lower contract prices over the life of the procurement. [Ref. 4:p. 5]

The Should Cost approach to cost estimating differs from the traditional cost analyzing approach in four ways. First, the Should Cost approach delves deeper into the contractor's operation and does so over an extended period of time [Ref. 3:p. 2]. Secondly, the Government challenges inefficiencies in the contractor's operation to a far greater extent than that of any other cost analysis [Ref. 3:p. 2]. The third difference is that the Should Cost analysis team resides in the contractor's plant until the analysis is complete [Ref. 5:p. 21]. Finally, each Should Cost team is independent of the program or contractor under review [Ref. 5:p. 21].

The Federal Acquisition Regulation (FAR), provides uniform policies and procedures for acquisitions by executive agencies of the Federal Government [Ref. 6:p. 3]. It denotes

the Should Cost concept as a specialized form of cost analysis, to be initiated prior to negotiations.

The FAR states that the Should Cost analysis is to be used to "evaluate the cost of production programs by evaluating and challenging a contractor's management and operating systems or portions thereof." [Ref. 6:para. 15.810 (a)] It denotes the use of "an integrated team of Government contracting, contract administration, pricing, audit, and engineering representatives." [Ref. 6:para. 15.810(a)] The objective of the Should Cost analysis is to evaluate the contractor's existing workforce, methods of operation, materials, facilities, and management and operating systems, in order to identify inefficient or uneconomical business practices. This evaluation will be used to promote both long and short range improvements in the contractor's business. Additionally, by delineating their findings and their impact on the contractor's cost, the Government will be in a much better position to develop and support price objectives for negotiations. [Ref. 6:para. 15.810(a)]

The scope of the Should Cost review can range from a full-scale, in-depth analysis of the contractor's entire operation, to a smaller review of specific cost elements or portions of the contractor's operation. Of course, the larger the effort, the larger and more complex the Should Cost analysis team becomes. The team will submit a separate analysis team report, prepared in accordance with agency

procedures. The contracting officer will consider the findings and recommendations contained in the report, when negotiating the contract. [Ref. 6:para. 15.810(b) and (c)]

C. BENEFITS AND CONCERNS REGARDING SHOULD COST ANALYSIS

Many benefits have been observed in the use of the Should Cost method of analysis. These benefits have not been achieved, however, without concerns towards the Should Cost study's effectiveness. This section will examine the various benefits and related concerns in using the Should Cost method of analysis. This section will rely, in part, upon a recent study evaluating the use of Should Cost studies in the Federal Government. [Ref. 5:pp.21-25]

Chapter IV of this thesis explores the actual infusion of these benefits and concerns in the three Should Cost studies researched. The benefits and concerns are therefore listed as background information.

1. Benefits

a. Setting the Negotiation Target

The Should Cost analysis should, as much as possible, set the target for the ACO or other negotiating official to use in the negotiations with the contractor. This target figure should be supported with the information and data necessary to defend the Government's position throughout the negotiation. In this way, the Government negotiator will be able to negotiate a more reasonable price

for the Government than if he lacked this information. [Ref. 5:p. 21]

b. Identifying Non-recurring Costs

The Should Cost analysis should be able to identify non-recurring costs, such as start up costs, that would otherwise be difficult to uncover under traditional analytical techniques. Under production contracts, these costs are difficult to segregate and often are paid out several times by the Government in later production contracts. The Should Cost study can point out these costs that are frequently hidden by the contractor. [Ref. 5:p. 22]

c. Identifying and Correcting Inefficiencies

Inefficient operations in the contractor's organization are frequently found during the Should Cost study. This information is extremely important to the contractor, as he strives to be competitive with other contractors in his industry. The highly skilled Should Cost team can identify these deficiencies and recommend methods to correct the problems to the contractor. [Ref. 5:p. 22]

d. Foster Better Government and Industry Relations

When the Should Cost team conducts a formal, professional, and thorough analyses of the contractor's operations, the contractor is "generally impressed and commends the Should Cost team members on their efforts." [Ref. 5:p. 23] The attitude between the contractor and the Government is often changed from antagonistic to supportive

of the team's endeavors. The recommendations for improvement, therefore, can be taken as truly helpful in nature by the contractor and can indeed foster better relations between industry and Government.

2. Concerns

The concerns associated with performing a Should Cost analysis are important to note and must be considered whenever contemplating a Should Cost endeavor.

a. Personnel

Obtaining the proper personnel to make-up a team of "expert talent" required to adequately perform a Should Cost study, is difficult to say the least. Trying to assemble personnel that are fully qualified in their specialty field and tasking them to leave their present jobs for three to six months to conduct an analysis at a contractor's plant, can be a logistic nightmare. [Ref. 5:p. 24]

Additionally, some training of members needs to be done in order to motivate team members and to make them more mobile in the Should Cost analysis arena. The time and resources are rarely available to fulfill this important requirement.

By not having properly trained or experienced personnel throughout the Should Cost team, the conclusions and recommendations presented to the contractor will lack the validity and conviction necessary to motivate the contractor

to implement those findings. The Should Cost team effort is thereby limited to the qualified resources available in their team structure.

b. Cost

The Should Cost technique is, by far, the most costly analytical technique employed by the Government [Ref. 4:p. 5]. The time involved at the contractor's plant carries a large price tag. The large size and technical requirements of a three to six month in-depth analysis requires a large Government team.

History shows that past Should Cost efforts have required from as few as eight persons, to as many as eighty [Ref. 5:p. 23]. The cost of transportation, salaries, food, and lodging for such a team can be significant. [Ref. 5:p. 24]

c. Planning and Organization

The initial planning to organize the Should Cost effort can be tremendous. As previously mentioned, the personnel requirements must be determined. This should be done with consideration to the contractor's size and scope of work to be analyzed. the make-up of the team is critical to the analysis and will have an effect on the amount of time spent at the contractor's plant, as well as the contractor's judgement of the resulting recommendations. The leader of the team must ensure that these specialists in their

respective fields are unbiased and professional in every aspect of their job. [Ref. 5:p. 25]

Contact with the contractor when first setting up the analysis, as well as continued open communications, must be maintained. Getting positive response and cooperation from the contractor is essential for a smooth and efficient analysis to be performed. This open, two-way communication must be initiated carefully and with proper tact, to ensure full participation by the contractor.

d. Applicability

The Should Cost concept identifies cost savings and recommendations to achieve what the product "should cost" the Government. The use and implementation of the recommendations by the Government and contractor are not always assured.

The Government uses the information presented in the analysis as a budgeting and negotiation tool. The extent to which these recommendations are pushed upon the contractor during negotiations, and the power of the recommendations as a club for the Government, are yet to be determined.

The contractor, on the other hand, is well aware that the findings and recommendations are to be used by the Government as a negotiating tool. What motivates the contractor to implement the recommendations? How confident is he that the ACO, when negotiating with the study's results, knows the significance of each of the findings?

What kind of support does the ACO have, besides the written report, to justify his positions at the negotiations? These questions pose a problem for the Government that should be addressed.

D. SHOULD COST OVERHEAD CONSIDERATIONS

Why look specifically at the overhead area as a Should Cost study? Over the past several years, there has been increasing criticism of the Government's management of the expenditures incurred by defense contractors. As a possible result of this deficiency, there have been large cost overruns on some of the major weapon systems being procured. These criticisms were reported during the hearings of the subcommittee on the Economy in Government of the Joint Economic Committee, chaired by Senator William Proxmire. This committee was highly critical of the practices in the Department of Defense and pointed out the "existence of institutional arrangements and procurement practices which have wasted billions of taxpayers dollars." [Ref. 7:p. 1]

The area of overhead costs contain the most volatile cost considerations, both for the contractor and for the cost analyst [Ref. 7:p. 2]. The management and control of overhead costs contain many deep-rooted problems. These costs continue to rise from year to year due to the results of inflation, increased labor costs, and other economic factors. [Ref. 7:p. 3]

Analysis of the overhead area is of grave concern to the Government, since sudden, unexpected increases in the overhead rates, have a corresponding effect on the costs of that contract. Although changes in the overhead rates can occur at anytime during the life of a contract, the initial overhead rates, established by the contractor, are what the Should Cost efforts focus upon.

An important element for the Should Cost team to consider, is that, at any time, a contractor can have many Government contracts on which he is actively working. As all of these contracts will absorb their share of the overhead costs, there is extreme pressure on the contractor to control and equally allocate his overhead costs. It must also be understood that there is always the overriding incentive for the contractor to achieve the maximum amount of overhead consideration on each Government contract. Therefore, the area of overhead cost is highly subjective, and can be denoted as an area of possible maximum cost savings to the Government. [Ref. 7:p. 4]

E. SUMMARY

This chapter has attempted to give the reader some background into the Should Cost concept by focusing upon the history, technique, and management considerations of this type of cost analysis. Some of the benefits of Should Cost analysis were presented, as well as some of the concerns

associated with its use. Finally the chapter looked at overhead cost considerations, when performing a Should Cost study in the overhead area.

III. SHOULD COST OVERHEAD STUDIES

A. INTRODUCTION

Each of the Overhead Should Cost studies that this researcher chose to study, contained findings and recommendations that were negotiated with the respective company for implementation. Some of these findings were unique to the company being studied and some were found to be similar in nature to two or all three of the companies. This chapter will discuss the background behind the selection of these companies as Overhead Should Cost study candidates, the areas of review for each study, the major factors having the greatest impact on the development of the overhead rates, and the analysis of these factors.

B. BACKGROUND

In December 1984, the Department of Defense (DoD) initiated a program to study and possibly reduce contractor overhead costs on DoD contracts. The Deputy Secretary of Defense sent a Memorandum to the Secretaries of the Military Departments, that directed each Military Service and the DLA, to perform one Should Cost study of plant-wide overhead at one contractor location during fiscal year (FY) 1985, and another contractor location during FY 1986. This initiative was intended to identify areas of potential cost savings and

areas where the Government could improve its own oversight.
[Ref. 8:p. 1]

In compliance with this DoD overhead cost reduction initiative, the Navy performed Overhead Should Cost studies at two contractor locations during FY 1985 and two contractor locations in FY 1986. The studies in FY 1985 were performed at Lockheed Missiles and Space Company, Inc., Sunnyvale, CA, and at Grumman Corporation, Bethpage, NY. During FY 1986, the two studies were performed at McDonnell-Douglas Aircraft Company, St. Louis, MO, and at Sperry Corporation, Great Neck, NY. This researcher selected one study from each of the two fiscal year studies performed, to analyze in this thesis. The Overhead Should Cost studies selected were: Lockheed Missiles and Space Company, and Sperry Corporation.

Additionally, in FY 1986, the DLA sent a letter to the Defense Contract Administration Services Region (DCASR), Los Angeles, CA, requesting an in-depth Overhead Should Cost review of Hughes Aircraft Company, Fullerton, CA. This study was also selected by this researcher, to compare with the two Navy studies.

C. AREAS OF REVIEW FOR LOCKHEED AND SPERRY

In both of the Navy Overhead Should Cost studies, six areas of responsibility were designated for analysis.

1. Organization and Accounting System

The objective of this portion of the study was to provide historical, present, and future organizational structure of the two Companies. Additionally, the cost accounting structures, Cost Accounting Standards (CAS) compliance, and overhead structures were analyzed. [Ref. 9:p. 10 and Ref. 10:p. 7]

2. Indirect Employees

The objective of this portion of the study was to determine the acceptability and methodology of proposed indirect employee staffing at the overhead pool level. Also, the driving factors behind the justification of the existence of the indirect employees was investigated. This investigation included validation of job descriptions, indirect classifications, CAS implications, and review of the quantifiable method of justifying existing headcount figures. [Ref. 9:p. 13 and Ref. 10:p. 9]

3. Business Base

In this area, the Should Cost team analyzed the business base and future business forecasts, to establish trends and arrive at specific overhead rate recommendations. The chief analytical tools employed included actual cost experience, historical forecasting accuracy, and regression analysis. [Ref. 9:p. 11 and Ref. 10:p. 15]

4. Compensation

Under the area of compensation, the teams looked at various forms of compensation (such as wages, salaries, and employee benefits), analyzed various industrial activities, developed data in a manner that would make it suitable for use in negotiations, and developed recommendations for use in the Forward Pricing Rate Agreement. The purpose of the analysis was to identify data that can be used to establish reasonableness of the various expenses to be reviewed. [Ref. 9:p. 17 and Ref. 10:p. 11]

5. Facilities/Fixed and Semi-Fixed Costs

This portion of the study was used to develop a Should Cost perspective on fixed and semi-fixed costs, including facilities and Independent Research and Development and Bid and Proposal (IR&D/B&P) costs. This was done using historical performance and past forecasted trends in each category under consideration. Cost accounts examined included insurance costs, building and property rental, plant rearrangement expenses, heat, light, and power, repair and maintenance, telephone expense, and corporate allocations. These data were used to develop a negotiation position for the negotiating team. [Ref. 9:p. 38 and Ref. 10:p. 15]

6. Automated Data Process (ADP) and Other Expenses

In this area, the study conducted a technical review of the ADP organization and operation, including mainframe, personal computers, office automation equipment, and

maintenance of these systems, to determine if these areas were being managed effectively. [Ref. 9:p. 40 and Ref. 10:p. 17]

In each of these functional areas, a Overhead Should Cost team was assembled and made an in-depth study of that cost area. Mr. E. G. Cammack, of the then Office of Naval Acquisition Support (ONAS), was appointed director of the Lockheed study by the Assistant Secretary of the Navy (Shipbuilding and Logistics) (ASN, S&L). He was charged with the responsibility of conducting the study and reporting the findings. In as much as the Air Force is the largest single Lockheed customer, they were also invited to participate in the study, and did so.

In the Sperry study, Mr. J. W. Ford, Jr., was appointed by ASN (S&L) as director of the study, and was charged with the responsibility of conducting the study and reporting the findings.

D. AREAS OF REVIEW FOR HUGHES

In the Hughes study, five functional areas were identified for review. They were:

1. Business Base

The study in this area focused on trends and specific overhead rates in the areas of future awards, manpower requirements, IR&D/B&P, software to support the base, forecasting and standards applied, direct and indirect rate

ratios, and direct versus indirect functions towards headcount reductions and labor rates. Cost experience and historical analysis were the key indicators used in this area. [Ref. 11:p. 12]

2. Facilities

The purpose of this portion of the study was to identify the fixed and semi-fixed costs applicable to the facilities function. This area included utilities, transportation and travel, facilities expenses, maintenance and repair, janitorial services, rearrangement expenses, facilities engineering, and supplies. [Ref. 11:p. 19]

3. Compensation

In this area of the study, the team concentrated on the development of data to support negotiations. Areas of concern included payroll expense, accrued vacation expenses, training, education, overtime, insurance, pensions, and the overall compensation system utilized by DCASR L.A. These data were developed to aid in establishing the reasonableness of the various expenses noted. [Ref. 11:p. 17]

4. Financial Systems Review

The object of this portion of the study was to provide a review and evaluation of the accounting, budgeting, billing, estimating, and internal auditing systems employed at Hughes. Additionally, compliance with CAS rules and regulations was determined. [Ref. 11:p. 18]

5. Other

In this section of the study, the focus of attention was on the ADP organization and utilization. cost of capital in this area was examined, as well as microcomputer and personal computer installation and use. Management of these systems and adequacy of documentation were key considerations. [Ref. 11:p. 22]

As with the Navy Should Cost studies, teams were assembled and assigned according to the five functional areas addressed. The Should Cost study director for the effort at Hughes was Mr. S. P. Simmons, Director of Contract Management, DCASR Los Angeles. He was appointed by the Director of DLA to lead the study and report the findings. The major findings of this study, as well as the major findings of the Navy effort, are listed in the following section.

E. RESULTS OF THE STUDIES

The major factors which had the greatest impact on the development of each Overhead Should Cost study recommended overhead rates were noted in each Overhead Should Cost study report. These factors, as identified by contractor, were:

1. Sperry

a. Contractor's lack of detailed supporting budgets and estimated cost data beyond one year for overhead rate projection purposes.

b. Increases in forecasted direct material and direct labor bases.

c. Reductions in projected headcount.

d. Use of current Navy guideline of 3.5% yearly escalation factor for direct and indirect salaried and hourly compensation.

e. Use of Air force Tri-Service Negotiations recommended IR&D/B&P ceiling amounts.

f. Weaknesses in the management of personal computers and office automation equipment.

2. Lockheed

a. The use of current Navy guideline of 3% yearly inflation factor for direct and indirect salaried and hourly compensation.

b. Increase in the forecasted business base.

c. The use of 1985 final negotiated IR&D/B&P ceiling amount as the recommended IR&D/B&P amount for the years 1986 through 1988, based on current Navy policy. A 3% increase to reflect inflation was made for 1989 and 1990.

d. A lower rate of increase for ADP costs based on a more reasonable and constant relationship between computing costs and the direct labor allocation base.

3. Hughes

a. The use of current Navy guideline of 3% yearly inflation factor for direct and indirect salaried and hourly compensation.

b. The direct headcount at Hughes was reduced across the board by an estimated 5%, due to schedule delinquencies and program losses.

c. A reduction in facilities due to an increase in leased facilities during a period of declining business and excess square footage not being utilized.

d. A decrease in utilities expenses due to decreased facilities costs and utility company projections.

e. Decreased ADP equipment costs by questioning indirect versus direct cost allocation, improved documentation flow, and tighter quality controls.

F. SUMMARY OF RESULTS

Several of the major factors listed in the preceding section show similar trends in the overhead cost analysis area. Although the specific impact on the overhead rates were different for each study, the similarities noted show where areas of impact may be encountered, on an industry-wide basis. Those factors that were found to be prevalent in at least two of the Overhead Should Cost studies were: the use of current Navy inflation factors for direct and indirect salaried and hourly compensation, an increase in the forecasted business base, headcount reductions, and ADP cost estimating.

The use of the current Navy guideline for yearly inflation (3.5% for Sperry, and 3% for Lockheed and Hughes)

for direct and indirect salaried and hourly compensation brought the increase in the forward pricing rates under a more constant inflationary increase. The increase was closer to actual inflation rates experienced in the past year, and real GNP growth expectations for the succeeding year.

By decreasing the forecasted direct and indirect labor rates, a large cost savings was projected for out-years in each study. In each case, all three of the companies were projecting increased business, resulting in expansion of the business base. The increased labor rates were based upon this assumption and were correctly identified and lowered through the Should Cost analysis.

By introducing improvements and reducing inefficiency, headcounts were reduced at Sperry and Hughes. This layoff of non-productive personnel should contribute to increased productivity of the personnel now staffed.

In the area of ADP equipment, all three companies were found to need greater management attention. Each Should Cost study pointed out specific areas for improvement that will lead to significantly lower costs of operation and maintenance of equipment.

G. SUMMARY

This chapter has discussed the background behind the selection of each of the contractors to participate in the

Overhead Should Cost studies, areas of review for each contractor, the factors having the greatest impact on the development of the overhead rates in each case, and analysis of these factors.

IV. EXAMINATION OF STUDIES

A. INTRODUCTION

This chapter examines each of the three Overhead Should Cost studies discussed in Chapter III. This analysis is based upon the research questions outlined in Chapter I and will be categorized into sections, based upon the specific questions asked during interviews. The responses to these questions were obtained by this researcher through personal interviews and telephone conversations. For each question, an answer will be presented by the individuals interviewed in association with each Overhead Should Cost study. The opinions expressed by these individuals will be presented by organizational entity; Government Buying Agencies (Assistant Secretary of the Navy/Shipbuilding and Logistics, Defense Logistics Agency, and Naval Sea Systems Command), Government Contract Administration (Defense Contract Administration Services Plant Representative Office and Navy Plant Representative Offices), and each of the contractor representatives.

B. OVERHEAD SHOULD COST TEAM ORGANIZATION AND MANNING

1. Government Buying Agencies Viewpoint

a. Sperry and Lockheed Studies

The organization of the two ASN sponsored Overhead Should Cost studies were similar and will be

discussed together. The organization of personnel in both studies consisted of a Director (charged with the responsibility of conducting the study and reporting the results), Deputy Director (assistant to the Director), and Team Leaders for each area of concentrated study. [Ref. 9:p. 41; Ref. 10:p. 25]

An Oversight Committee was developed in both studies, consisting of the Director, Deputy Director, and representatives from the Navy, Air Force (for the Lockheed study inclusively), and Defense Contract Audit Agency (DCAA). Their function was to evaluate the team's findings and assist in the formulation of the final position. [Ref. 9:p. 1; Ref. 10:p. 2]

Personnel for the two teams were selected primarily by the team leaders in each study [Ref. 12]. The team leaders were selected by the Deputy Directors, with the concurrence of the Directors in each study [Ref. 13]. Team Leaders were selected on the basis of their previous experience in the area for which they were to be responsible (organization, accounting, facilities, ADP, etc.). Their track record at their present command was also considered important, as these individuals were to be given the responsibility of auditing on a fairly independent basis [Ref. 13]. Availability of the individuals was taken into consideration, since they would be away from their parent command for anywhere from three weeks to three months. With

this fact in mind, once in awhile, a little pressure from higher sources (like ASN), would need to be exercised, in order to get the required individual released to the team. [Ref. 13]

The teams were organized into specific review areas, with a Team Leader in charge of the analysis of that cost area. Team members came from a variety of commands including, NAVSEA, DCAA, Space and Naval Warfare Systems Command (SPAWAR), China Lake Naval Weapons Station, the NAVPROs associated with each study, and the Air Force Plant Representative Office (AFPRO) at Lockheed. [Ref. 9:p. 43; Ref. 10:p. 27] The team members were selected by the Deputy Directors, in coordination with the Team Leaders, using the same rigid criteria that were used to select the Team Leaders [Ref. 12].

b. Hughes Study

The Overhead Should Cost team organized for the effort at Hughes was similar to the other two studies in that a Director and Deputy Director were selected to conduct the study and report the results. The selection and coordination of the Team Leaders and team members was, again, similar to that of the Sperry and Lockheed studies. One variation however, was that in the Hughes study, there was a greater use of the on-site DCASPRO personnel to perform all functional areas of the study. All of the Team Leaders and

most of the team members were selected from the DCAS Region (DCASR), Los Angeles. [Ref. 14]

One reason for the use of DCASPRO personnel to perform the study was DLA's position that an in-house effort would be more efficient and cost effective [Ref. 14]. Therefore, little effort was put forth by DLA to bring individuals in from outside of the local area to perform the study [Ref. 15]. The personnel that were brought in from outside the DCASR were a small group of Army and Air Force personnel. These personnel turned out to be quite knowledgeable in the Should Cost process and were a great help in the functional areas assigned them. [Ref. 16]

2. Government Contract Administration Viewpoint

a. Sperry and Lockheed Studies

Since the Team Leaders and the majority of the team members were selected by the Deputy Director, the NAVPROs both felt a little alienated by the studies. In both studies, the NAVPRO personnel were forced to perform on-the-job training for each of the non-NAVPRO team members, in order for these individuals to proceed with their portion of the study. This was especially true when the contractor's accounting system was being analyzed. [Ref. 17; Ref. 18]

Additionally, personnel were continually being introduced into the Should Cost studies, at various stages of review. Each time a new person was brought into the study, that person had to be brought up to speed, in order to

continue analysis of that functional area. The NAVPRO personnel found themselves breaking in new team members throughout the study. [Ref. 17; Ref. 18]

In both studies, the ACOs were given the assignment of being a Team Leader of a particular functional area. They therefore, did have some say as to the findings and recommendations of the study; but only in that particular area. Both ACOs expressed the opinion that they should have been given a more active role in the studies, as they were the individuals given ultimate responsibility for future negotiations, based upon the findings of the studies. [Ref. 17; Ref. 18]

b. Hughes Study

As previously mentioned, the Overhead Should Cost study at Hughes was performed primarily by the DCASR and DCASPRO on-site personnel. Personnel interviewed at the DCASPRO found this to be an effective analysis technique, as there was little turnover of personnel, and no problem with having to train new people. Additionally, personnel from outside of the DCASR organization were very familiar with the Should Cost form of cost analysis, and needed little introduction. [Ref. 15]

Even though the DCASR was given the responsibility of performing the Overhead Should Cost study, thereby utilizing their own work force, team leaders at the DCASPRO had the strongest say as to the makeup of the

functional area teams. This was advantageous, as there was little cross training needed before the study began. [Ref. 16]

3. Contractor Viewpoint

a. Sperry Study

The contractor's viewpoint at Sperry was one of cautious concern towards the Overhead Should Cost team as a whole. Management representatives interviewed noted that the team members were highly qualified and conducted themselves admirably during their cost analysis. There was some concern by the management at Sperry over the lack of understanding of the accounting system, by those individuals sent in by other activities. The organization of the team was not of concern, just the lack of in-plant knowledge that had to be absorbed by those non-NAVPRO team members. [Ref. 19]

b. Lockheed Study

At Lockheed, management personnel interviewed stated that they were quite comfortable with the makeup of the Overhead Should Cost team. They felt that each team member was professional and straightforward. There was concern, however, about the individuals brought in from outside organizations. One individual noted that these individuals were not responsive to the special problems embodied in some areas of the cost analysis. It was felt that these individuals could have worked closer with their

NAVPRO counterparts in their functional teams to become more aware of special problem areas. [Ref. 20]

c. Hughes Study

Due to the in-house flavor of the Overhead Should Cost teams, the management representatives at Hughes found few difficulties with the organization and makeup of the Should Cost team. They agreed that the individuals brought in from other activities (Army and Air Force) were very knowledgeable in Should Cost study analysis techniques, were easy to work with, and worked well with their DCASPRO counterparts. [Ref. 19]

C. RELATIONSHIPS FOSTERED BY THE SHOULD COST STUDIES

1. Government Buying Agencies Viewpoint

a. Sperry, Lockheed and Hughes Studies

Personnel interviewed expressed the idea that the Overhead Should Cost studies at all locations improved relations between the contractors and the Government [Ref. 12; Ref. 13]. It was acknowledged by one interviewee that the Should Cost type of cost analysis is difficult for the contractor to try to absorb. Over an extended period, the contractor can become less enthusiastic about opening his records to various individuals, from outside organizations. But, this individual felt that these inconveniences are outweighed by the useful information that can be gathered by

the contractor, in order to enhance his position in the industry. [Ref. 12]

One Government representative noted that it is in the contractor's best interests to improve relations with the Government. The Should Cost study gives the contractor the unique opportunity to deal directly with the higher echelons of the Government and open more productive communication channels. In this way, the contractor can have easier access to needed information and create a stronger bond between himself and the Government. His future can be greatly enhanced by positive relations with the Government, even if he believes those relations to be sound at the present time. [Ref. 13]

2. Government Contract Administration Viewpoint

a. Sperry Study

In this researcher's analysis, the Overhead Should Cost study at Sperry resulted in a weakening of the Government and contractor relationship. In one general area, the relationship became almost adversarial.

This problem stems from the fact that the Overhead Should Cost study was mainly performed by individuals from outside of the contractor's plant. This team did the in-depth analysis of the contractor's costs, grouped findings into the functional areas, made recommendations to the company, and formalized the study into a negotiation package for the ACO to utilize in negotiations.

In this case, the ACO was entrusted with the responsibility of negotiating a package over which neither she nor her people had much influence. The ACO had to take a hard line with the company over the findings, without actual hands on experience with the procedures taken to achieve those findings. [Ref. 17]

Additionally, the complete Overhead Should Cost study, including the in-depth analysis of each of the findings, had not been given to the contractor for analysis. The NAVPRO ACO pointed out that this lack of information to the contractor had caused the contractor to take a hard stand on many of the issues in the study and to be less willing to work with the NAVPRO on resolving some of the problems encountered. This led to increased tension between the NAVPRO and the contractor which was harmful to the Government - contractor relationship. [Ref. 17]

b. Lockheed Study

The relationship between the Government and contractor, fostered by the Overhead Should Cost study performed at Lockheed, does not seem to be improved. The overall feeling expressed by individuals interviewed at Lockheed, was that the study did not improve relations at all; in fact, relations may have declined since the study ended. [Ref. 18]

As in the Sperry study, the ACO had little input into the Should Cost findings and was expected to negotiate

an agreement using other analysts' information. By not having full knowledge of the background used to formulate the findings, he found himself taking a harder position in negotiations than he would have liked. This made it more difficult for him to deal with Lockheed in many areas of the negotiations. The typical response from the company to the ACO, when trying to support the Government position, was: "That's just the opinion of some outsider who doesn't even know our system." [Ref. 18] The ACO noted that the company was not willing to negotiate in many areas, often challenging that the auditor who performed the analysis did not fully understand the internal organization of the company. This situation was felt to be detrimental to the relations between the Government and the contractor. [Ref. 18]

c. Hughes Study

In the DCASPRO viewpoint, better relations were fostered between the Government and the contractor, due to the Overhead Should Cost study performed there. The key, in this study, seemed to be in how the findings and issues were presented during negotiations, and the attitude of the contractor towards the recommendations. [Ref. 15]

Personnel interviewed noted that the issues were presented in a method that started with the smaller, easier to define issues, and worked progressively up to the larger, more complex issues. At all times, the ACO was honest and straightforward with the contractor. They did not try to

"play games" during the negotiations. The Hughes representatives seemed to appreciate the ACO's candor. [Ref. 16]

The ACO explained that the contractor appeared to feel comfortable with the study, due primarily to the fact that they knew most of the study team members and had open access to their analysis of the cost estimations. This was a critical factor during negotiations, since the contractor could see how the Government was deriving its numbers and led to easier negotiations. This, in turn, led to a stronger trust, and thereby better relations between the Government and the contractor. [Ref. 15]

3. The Contractor's Viewpoint

a. Sperry Study

Personnel at Sperry believed that the Overhead Should Cost study did nothing to foster better relations between the company and the Government. One contractor representative expressed the opinion that the real aim of the study was to ". . . drive the contractor into the lowest cost situation, thereby telling the company how to run their business." [Ref. 19]

In certain areas, contractor representatives felt that they were receiving good information to better their standing in the industry. Many of the findings, however, were in areas that couldn't be addressed as separate issues. The company felt that overhead rates and overhead problems

are not solitary. They felt that in order to fully present the findings in the overhead area, the total costs of all associated areas should be addressed. They therefore took a very firm stand in negotiations and refused to fully accept the Government's position. [Ref. 19]

Management at Sperry was not happy with the way Government brought in additional outside analysts at different points during the study. Each time a new person appeared, regardless of the functional area assigned, that person needed to be given background into the operation of the area. The company felt that they were continually giving the same information over and over again. They found it hard to believe that these outside analysts could give a thorough view of the functional area assigned, in order to give credence to the findings and recommendations made during negotiations. [Ref. 19] Additionally, management was upset with the Government for performing the study in the first place. At the time of the study's inception, Sperry was merging with Burroughs to become UNISYS Corporation. Management was changing hands, procedures were being updated and changed, and the entire system was being reorganized. How the Government could come up with an effective Overhead Should Cost study was a question that caused concern with the contractor. [Ref. 19; Ref. 17]

Finally, interviews with Sperry management and NAVPRO personnel showed that the major problem encountered

during the study and throughout negotiations, was the Government's refusal to give the contractor any of the background information on the analysis of the functional areas. This meant that the contractor had no idea as to the validity of the findings, when presented during negotiations. The denial of this information caused management to feel that they were not trusted, causing ill-feelings towards the Government in this area. [Ref. 17; Ref. 19]

The accumulation of all of these problems caused a feeling of doubt to be present in the minds of Sperry's Management and led to a decline in relations between the contractor and Government. [Ref. 17; Ref. 19]

b. Lockheed Study

Contractor representatives interviewed noted that the situation at Lockheed created a feeling that the relations were not bettered by the Overhead Should Cost study performed there, but they were not damaged either. [Ref. 20]

The main question that caused concern for Lockheed was the validity of the claims made by the ACO during negotiations. As in the Sperry study, the Management at Lockheed questioned the accuracy of outside inspectors, who could not fully appreciate the internal concerns of the company. [Ref. 20] Therefore, how could the ACO support his position in negotiations, using information provided by individuals who were not familiar with the operation of the company? Additionally, the company questioned the ACO's

knowledge in the areas he was negotiating; since he did not personally audit those areas? These questions forced Lockheed to assume a stronger position during negotiations and kept them from bargaining as freely as they would do normally. [Ref. 20]

These situations did not harm the relationship between Government and contractor, but they definitely did not better relations. [Ref. 20]

c. Hughes Study

The representatives interviewed at Hughes, felt that at the time the Overhead Should Cost study was performed at their plant, the study did foster better relations between the Government and themselves. Recently, however, this attitude has changed dramatically. Both situations will be presented here.

Hughes agreed to the recommendations and findings of the study based upon the presentation of the analysis behind the findings. The recommendations were well-negotiated and Management felt that they could perform to these levels. They were forward-thinking and wanted to be competitive in their industry, so the lower cost figures could help them to be more competitive, and thereby gain more business in the future. In this sense then, the relations between the Government and the contractor were improved. [Ref. 21]

Only recently has this situation changed. Since the inception of the Overhead Should Cost rate agreement, the business base at Hughes has declined dramatically. Management feels that the agreement was based upon a business base that, at the time, was expanding. In three years since the agreement was made, Hughes has found themselves financially hurt by the decisions agreed to in the study. [Ref. 21]

Additionally, they were further hurt by the Government's insistence that Hughes continue to base future overhead rates upon the rates agreed to in the Overhead Should Cost study, even though the business base had declined. To quote one source: "Had the Government been in our shoes, they would have been screaming for renegotiation of the overhead rates." [Ref. 21]

Further, individuals interviewed expressed the opinion that, at the time of the study, there was pressure from the "Washington Bureaucracy" to sign up to the recommendations of the Overhead Should Cost study. The company felt pressured to make an agreement, so that it could look good in the eyes of the Government. [Ref. 21]

It appears to this researcher that these embittered feelings towards the Government, and the Overhead Should Cost study in particular, have not improved relations between the contractor and the Government. [Ref. 21]

D. USE OF SHOULD COST RESULTS IN NEGOTIATIONS

One of the basic purposes for performing a Should Cost study of any type, is to develop a position for the Government to utilize in subsequent negotiations of that contract. [Ref. 3:p. 2] This section will discuss the strategy behind the Government's use of the Overhead Should Cost studies in negotiations. It will also look at the negotiations at each contractor location, in regard to the Government and contractor position before, during, and after the negotiations took place.

1. Government Buying Agencies Viewpoint

a. Sperry, Lockheed, and Hughes Studies

The Overhead Should Cost studies performed at each contractor location had a similar goal concerning negotiations. Each study was to be the foundation used to build the pre-negotiation clearance. The Government's position was to be established prior to entering negotiations, utilizing the Overhead Should Cost study as the principal source of this position. [Ref. 12; Ref. 13; Ref. 14]

Government interviewees indicated that each of the studies had similar procedures regarding the negotiation process. The ACO would be the chief Government representative during negotiations. He or she would rely heavily upon the Overhead Should Cost study for establishment of a Government position and supporting documentation for

this position. The study could be used as a "hammer" if necessary, although use of this technique was not anticipated. [Ref. 13; Ref. 14; Ref. 15]

The use of ACOs as chief negotiators served to get the ACOs more involved in the total process. It was reasoned that the contractor should feel more relaxed and familiar with the ACO, since they deal with the ACO on a daily basis. Additionally, even though the ACOs did not get deeply involved in the Should Cost study itself, they did possess significant knowledge of the contractor's accounting system. Therefore, they were best suited to defend the Should Cost study's positions. [Ref. 13]

2. Government Contract Administration Viewpoint

a. Sperry Study

At Sperry, the ACO viewed the negotiations with the contractor as strained and difficult, at best [Ref. 17]. The problems stemmed from several sources.

From the inception, the ACOs interviewed stated that they did not have a good grasp of the findings and recommendations of the study, since the majority of the work was performed by individuals outside of their command. This led to some uncertainty for the ACO during negotiations; especially when the documentation being used to support the Government's position was unfamiliar. [Ref. 17]

This uncertainty and unfamiliarity was compounded by the rotation of inspecting personnel, by the Government,

during the study. The ACO found it difficult to support information that was gathered by one individual and then continued and updated by another individual; due to the departure and subsequent replacement of the first individual. [Ref. 17]

As noted previously, Sperry was undergoing a major corporation change during the time of the Overhead Should Cost study. This also created problems during negotiations. The ACO found it very difficult to get the contractor to agree on many points, without the intervention of the representatives of the other companies involved in the merger. It was difficult to present recommendations based upon a company that, for all intents and purposes, no longer existed as it was before the study began. Many issues needed to be broadened to fit the new corporation. In some cases, the recommendations were no longer valid and hence, could not be negotiated as proposed. [Ref. 17]

These problems made the negotiations with Sperry very difficult. The ACO did make some progress in areas that could be applied to the newly established company, but, at the time of this research, negotiations were still in progress. [Ref. 17]

b. Lockheed Study

Negotiations at Lockheed had similar problems for the ACO, as those encountered at Sperry.

The ACO at Lockheed felt uncomfortable using a study with which he was not fully involved. He was pressed by the contractor to defend the positions developed by individuals outside of the NAVPRO, who did not know the accounting system. [Ref. 18] Additionally, the contractor felt that the Overhead Should Cost team members were not well versed in overhead cost analysis. [Ref. 20]

As mentioned earlier, Lockheed did not receive an in-depth copy of the Overhead Should Cost study, during negotiations. This lack of information to the contractor created an additional feeling of mistrust between the contractor and the Government. This mistrust, was difficult to overcome by the ACO and lengthened his efforts to reach an agreement. [Ref. 20]

The areas that the ACO did have success in negotiating, were those that he could "bottom line," vice carry out a lengthy cost explanation. [Ref. 20]

Although negotiations were completed, it was felt that the ACO's position had deteriorated in the eyes of the contractor, due to the way the study was "dropped in his lap without proper background." [Ref. 20]

c. Hughes Study

At Hughes, the negotiations between the DCASPRO ACO and the contractor were relatively smooth. The ACO presented the Government's position, drawing largely upon the

Overhead Should Cost study results as supporting documentation. [Ref. 15]

The ACO used a strategy of straightforward, no-nonsense data presentation to establish critical points throughout the negotiations. Since the results of the Overhead Should Cost study were made available to the contractor, this straightforward approach was effective, since the ACO could point out many of the arguments from the study, directly to the contractor. [Ref. 16]

By utilizing their own people in the study, the ACO could call upon the individuals who worked on specific functional areas of the study, during negotiations, to present their analysis or methodology behind a particular finding. This availability of team members during the negotiations created a solid support team for the ACO to draw from and helped firm the Government's position throughout the negotiations. [Ref. 16]

3. Contractor's Viewpoint

a. Sperry Study

In the view of the management of Sperry, the negotiations between the Government and Sperry have been difficult at best. As previously mentioned, Sperry, felt that: "The role of the Government in this situation was to drive the overhead rates down, regardless of the costs to be considered." [Ref. 19] Additionally, Sperry felt that the overhead rates were not the only issue. The overhead rates

and costs associated with those rates, should be approached with more of the total costs in mind. It was felt that the fixed costs needed to be figured into the overhead analysis, in order to provide a more complete picture of the cost to be considered. This position was addressed vigorously during negotiations and was a major point of contention between the Government and the contractor. [Ref. 19]

Contractor representatives also noted that the Government was using the Overhead Should Cost study as a "Big Stick" to drive home it's positions. This feeling was compounded by the Government's reluctance to provide the contractor with the analytical background to the study before negotiations. This caused a feeling of distrust between the two parties that hampered the negotiations. [Ref. 19]

b. Lockheed Study

At Lockheed, the negotiations took a similar tone to the negotiations at Sperry. Interviewees at Lockheed felt very strongly that trying to perform a Should Cost study of just the overhead costs would not provide an accurate picture of the contractor's operation. They felt that all of the costs should have been considered, and presented this position during the negotiations. Management felt that many of the findings of the study could have been presented differently, had the total costs been considered. [Ref. 20]

In addressing the negotiations, management realized that the ACO was not completely knowledgeable of the

supporting documentation provided by the study. Therefore, they challenged the ACO to provide as much factual evidence as possible during negotiations, and to support that documentation. This created tension between the parties, as an appearance of mistrust was permeated. [Ref. 20]

c. Hughes Study

The negotiations at Hughes were considered, at the time, to be fair and reasonable to management. There was some concern about the rates agreed to, since they were based upon an expanding business base for the company. But, overall, the contractor felt that they could meet the Government's position in most of the areas presented during negotiations. This feeling has since been changed. [Ref. 21]

Hughes, now feels that the company was pressured by the Government, during negotiations, to agree to the positions presented by the study. Due to this pressure, the negotiations were completed too quickly, with the contractor not taking the time to thoroughly analyze the Government's findings and recommendations. The contractor felt that had there been more study into the effects of a possible declining business base for the future, the overhead rates would have been negotiated more vigorously. [Ref. 21]

E. MOTIVATION FOR AND IMPLEMENTATION OF RECOMMENDATIONS

This section will discuss the elements used by the Government to motivate the contractor to implement the recommendations made by each Overhead Should Cost study. It will also discuss the rationale behind the recommendations that were implemented by the contractor and those that were not.

It should be noted at this time that all of the recommendations made by the Overhead Should Cost teams in each of the three studies, were taken under consideration by the contractors. During negotiations, not all of the recommendations were agreed to and some actions were negotiated out. All of the recommendations agreed to in the negotiations have been implemented by each of the contractors. Therefore, these specific findings and actions will not be discussed.

1. Government Buying Agencies Viewpoint

The views of the key Government players were similar and will be addressed together.

Those interviewed felt that each contractor should be internally motivated to improve his standing in his industry. He needs to be aware of areas that can be made more efficient and should be receptive to suggestions to improve those areas. One of the purposes of the Should Cost study is to identify ineffective operations and challenge the contractor to correct these deficiencies [Ref. 3:p. 2]. The contractor

should be sufficiently motivated to take the recommendations and use them to improve his company's position. If a contractor is open-minded about utilizing the Should Cost study's results to his advantage, he will need very little external motivation to implement the recommendations. [Ref. 12; Ref. 13; Ref. 14]

As to the areas of implementation, there was a consensus among the key Government players as to why some recommendations were easier to implement by the contractor and why some were more difficult.

As a general rule, findings and recommendations presented in areas that were deemed as "non-personnel" (such as ADP, IR&D, etc.), were easily negotiated, and quickly taken aboard by the contractor. Issues that were seen as "personnel related" (benefits, salaries, wages, retirement, etc.), tended to be very difficult to address and negotiate. [Ref. 12; Ref. 13]

Any time a recommendation deals with an area that comes under possible union control, there is bound to be hold-ups and snags in the negotiations. Contractors are not easily convinced that they must cut back salaries, personnel, or retirement and benefit packages. The contractor fought hard and long to establish these salaries and benefits for their employees. Getting the contractor to see the cost benefits of cutting these areas was difficult in each study. [Ref. 12; Ref. 13]

2. Government Contract Administration Viewpoint

a. Sperry Study

The views of the ACO at Sperry, as to the motivation and implementation of recommendations, echoed the thoughts of the Government interviewees noted in the preceding paragraphs. The ACO felt that the contractor should be internally motivated to take recommendations for action that advance his position in the industry. Along with this thought, the ACO considered competition to be an even greater motivator. As the DoD decreases the amount of money that they are going to be spending on contracts, the contractor is going to be forced to do more with less. Therefore, any recommendations to improve their company and make it more competitive, should be welcomed by the contractor. [Ref. 17]

Those recommendations with which the ACO had the greatest difficulty, involved labor rates, compensation, and benefit packages. Again, the contractor was very unwilling to accept the recommendations for cutting costs in this area, due to union pressure. Especially prevalent was the effect of the merging companies. The contractor was not entirely sure what type of labor package it would have after the new company was established. This added to the difficulty in implementing recommendations in the labor area. [Ref. 17]

b. Lockheed Study

The ACO at Lockheed found that motivating the contractor to implement recommendations was very difficult. Lockheed had no real competition in this area to worry about. Additionally, being a dual cognizance plant (AFPRO and NAVPRO) caused motivation problems, as the contractor frequently used the dual cognizance perception to down play possible Government pressure. [Ref. 18]

In the ACO's perception, in trying to work with the contractor to implement recommendations, the contractor followed a similar acceptance level as that of Sperry. The contractor would buy into any findings that provided a real savings in the non-personnel areas. In many of the findings involving labor and benefit cutbacks, the contractor took a very hard line and refused to give into the recommendations. [Ref. 18]

c. Hughes Study

At Hughes, the DCASPRO ACO found that motivating the contractor to accept the recommendations of the study was fairly easy. Hughes, as stated before, was highly interested in improving its position in the industry and looked to the study to provide guidance towards this goal. The ACO also found that compromise and honesty were good motivators when establishing the recommendations. In this case, the competition and the company's internal drive were motivation enough to implement most of the recommendations. [Ref. 15]

Some areas were more difficult to motivate than others. In this case, the areas included labor rates, manpower levels, Corporate office space, and building lease considerations. Overall however, the contractor made more concessions, at an earlier time, than the other two contractors. This could be attributed to management's concern for growth in the industry and their reliance on the Overhead Should Cost study's recommendations to assist them to this end. [Ref. 16]

3. Contractor's Viewpoint

a. Sperry Study

As the major motivator, Sperry representatives expressed the feeling that competition and the need to be competitive in the fixed-price environment, was essential. They want and need all of their share of Government business. This is not just to ensure profits for the company, but merely to survive. The key then, is survival. This is probably the single most key motivator. [Ref. 19]

As to the recommendations that the company chose to implement, management personnel interviewed felt that the recommendations having the greatest impact on the company's competitive position, were the most useful, and easiest to implement. [Ref. 19]

Considerations for implementation included the effects of the recommendations on the newly established

company which included Burroughs. This created special problems in the labor and benefits area, as management was unsure of the policies that would be implemented upon completion of the two-company merger. [Ref. 19]

b. Lockheed Study

At Lockheed, the motivation factor most in use was that of being competitive in the industry. Management representatives felt that the Overhead Should Cost study could be used to their benefit and was receptive to the recommendations that they saw as helpful. They felt no other compelling motivation towards implementing the recommendations of the study. [Ref. 20]

Management personnel interviewed felt that there were some good recommendations and did implement these quickly. Some areas however, were considered unreasonable and contained inconsistent guidance. These areas included inflation consideration and ADP costs. Although these areas were settled in negotiations, they provided a large area of cost difference, that the contractor felt was not justified by the Government. [Ref. 20]

c. Hughes Study

In this researcher's analysis, the management at Hughes was probably the most motivated of the three contractors at the beginning of the Overhead Should Cost studies. They expressed the greatest desire to seek benefits from the study, to help them improve their effectiveness in

the industry. At the time, the company was growing and the business base was expanding. The feeling was that if the study could make them more competitive, perhaps they could bid on more Government contracts, and be more effective in implementing those contracts. Getting motivated to implement the recommendations was not a concern at Hughes. [Ref. 21]

Due to this can-do attitude at Hughes, there were no real problem areas that were not easily overcome during negotiations. [Ref. 21; Ref. 15]

F. FOLLOW-UP ACTIONS AND IMPACT

1. Government Buying Agencies Viewpoint

Government personnel expressed generally negative feelings towards the necessity of follow-up action for each of the Overhead Should Cost studies. Although there was a consensus that some sort of follow-up should be performed to assure contractor compliance with the recommendations of the Should Cost studies, it was felt that the costs and difficulties involved with selecting a follow-up review team, outweighed the desire for follow-up action. [Ref. 12; Ref. 13; Ref. 22]

One Government interviewee indicated that there had been some follow-up on the Lockheed study approximately one year after the negotiations ended, but it did not entail a large effort by the Government. The follow up was a three

day review that checked the implementation of recommendations for the past year. [Ref. 12]

Government personnel noted that the impact of performing a large-scale follow-up would not produce the savings necessary to justify the time and cost involved in the follow-up. [Ref. 12; Ref. 13]

2. Government Contract Administration Viewpoint

a. Sperry Study

The Overhead Should Cost study performed at Sperry did not receive a follow-up review and the personnel interviewed at the NAVPRO did not feel that one was necessary. It was felt that since the recommendations applied to the company before the two-company merger occurred, any follow-up would be ineffective, as many of the recommendations no longer apply to the new company. [Ref. 17]

The ACO did feel that a follow-up review could be useful if it provided additional support for negotiations. The follow-up could provide additional power and leverage to aid the Government's position. In this specific instance then, a follow-up could be useful. [Ref. 17]

b. Lockheed Study

The only follow-up review done by the Government was performed approximately one year after the completion of the Overhead Should Cost study at Lockheed. Although small

in comparision with the Should Cost study effort, it did provide the Government a feel as to the acceptance and implementation of the recommendations by the contractor. [Ref. 18]

The ACO noted that the follow-up went rather smoothly and was well received by the contractor. He felt that the idea of a follow-up is important, as it shows the contractor that the Government cares about the study and its results. He also stated that the NAVPRO does not have the personnel or time to perform a follow-up analysis and therefore appreciated the efforts of the Government. [Ref. 18]

Two problems noted by the ACO were addressed in the follow-up study. First, the business base had changed slightly since the Should Cost study was performed. This caused some initial difficulties in evaluating the contractor's implementation in several cost areas. This problem was solved quickly through Government determination of the new base and contractor compliance with the new figures and modification of the cost areas involved. Secondly, the ACO felt that the follow-up was done on relatively short notice to the company and the NAVPRO. This short notice caused some initial scrambling for data and added to the difficulties experienced in the first problem.

c. Hughes Study

There was no follow-up review performed on the Overhead Should Cost study performed at Hughes. Personnel interviewed at Hughes stated that since DCASPRO personnel comprised the majority of the Should Cost study team, there would be no follow-up from any outside source. If a follow-up needs to be done, it was felt that the DCASPRO would perform it.

Additionally, the ACO felt that since the DCASPRO did the study, negotiated the contract, and is currently administering the contract, there is no need for a follow-up. The review of the study is a normal function of the DCASPRO, as it administers the contract. [Ref. 15]

3. Contractor's Viewpoint

a. Sperry Study

A management representative interviewed at Sperry felt very strongly that there should be more Government follow-up after the Overhead Should Cost study was completed. This follow-up should come from a fairly high source, such as the Secretariat level. The follow-up should be conducted with the company in a face-to-face manner and address the "real issues" that the contractor deems most important. It was felt that the ACO does not have enough clout to perform the proper follow-up needed. The ACO cannot solve many policy issues and the contractor would rather deal directly with someone who can implement actions immediately after the follow-up. [Ref. 19]

In addition, this individual felt that the NAVPRO does not have the time or manpower necessary to perform a follow-up study. Without the manpower, time, or political clout available, the NAVPRO is incapable of performing an effective follow-up review of the Overhead Should Cost study.

b. Lockheed Study

Management personnel expressed a desire to meet Government personnel engaged in a follow-up capacity, in order to discuss the Overhead Should Cost study performed at Lockheed. It was felt that the actual review of the contractor's implementation of recommendations was unnecessary, as the contractor should be trusted enough by the Government to carry out the implementation of recommendations agreed to during negotiations. The purpose of a follow-up should be to assess the contractor's concerns after the recommendations have been implemented, and address problems associated with those findings.

c. Hughes Study

Management interviewed at Hughes were not questioned on the effectiveness of a Government follow-up review of the Overhead Should Cost study performed at Hughes.

G. OVERHEAD SHOULD COST IMPACT AND EFFECTIVENESS

The overall impact and effect of each study will be addressed in this section. It will look at the Government's

and respective contractor's feelings towards the success of the study and problems associated with the Overhead Should Cost study idea.

1. Government Buying Agencies Viewpoint

- a. Sperry Study

Government representatives viewed the Overhead Should Cost study at Sperry as effective and successful, in spite of the difficulties experienced with the company merger during the study.

It was pointed out that the study was successful because it uncovered inefficiencies and areas for improvement at Sperry, that could be initiated by the contractor whether a merger was underway or not.

Based upon the difficulties noted earlier in this section, the extent and depth of the findings were noteworthy, and were utilized to their fullest extent by the Government. As one Government representative aptly put it; "the findings and subsequent cost savings were nothing less than heroic." [Ref. 12]

Another area identified through interviews of Government team members was the increased ability of the ACO to negotiate the Forward Rate Pricing Agreement. This ability was increased because the Overhead Should Cost study forced the ACO to delve deeply into the contractor's accounting system, in order to assist the Should Cost team

members in their analyses. Further clearances will be easier to obtain, as will future reviews of the contractor's accounting system. [Ref. 12; Ref. 13]

Government personnel did acknowledge that there were some problems encountered with the contractor, in relation to the fact that the Overhead Should Cost study was performed during a very unsettling time for Sperry. Overall, however, these problems were resolved quickly and the study was completed successfully.

b. Lockheed Study

The Lockheed study was also deemed a success from the viewpoint of the Government personnel interviewed. Since it did not have the organization problems that were experienced at Sperry, it was thought that the study went very smoothly and efficiently. The study was effective in that it was an excellent foundation upon which to build the pre-negotiation clearance. [Ref. 12]

Government personnel expressed the view that the study impacted the contractor in a positive manner. With the implementation of the Overhead Should Cost recommendations, the contractor is better equipped to be more competitive in his industry. [Ref. 22]

Finally, the results of the study were also well-received in the political arena. In the opinion of one Government representative, the Overhead Should Cost study at

Lockheed provided Congress with a positive indication that this type of cost analysis is successful.

c. Hughes Study

Government representatives interviewed felt that this was an extremely successful Overhead Should Cost study. The recommendations implemented were representative of the excellent cooperation between the Government and the contractor.

Government representatives noted that a key indicator as to the future success of the study was the contractor's positive approach to the study from the onset. At the time, the contractor was very motivated to make the study something that would provide him with ideas and recommendations that would make him more competitive. It was felt that the study accomplished this very effectively. Therefore the study was thought to have a positive impact on the contractor, as well as the Government. [Ref. 14]

2. Government Contract Administration Viewpoint

a. Sperry Study

Personnel interviewed at NAVPRO Sperry had a different view of the effectiveness and impact of the Overhead Should Cost study. The consensus of these individuals was that the study was not effective and did not benefit the company or the NAVPRO.

First, the study was considered ill-timed. By performing an in-depth analysis during a major organizational change, the Government gave the impression to the contractor that it was more concerned with just getting the study done, than the actual results. No thought was given to the problems incurred after Sperry merged with Burroughs. It was felt that the NAVPRO would have to sort out these problems as they occurred.

One interviewee noted that there was little thought given to the possibility of the base decreasing after the study was completed. With a declining base, the contractor becomes less apt to implement many of the recommendations, due to the large losses that would result from lowering his overhead levels. [Ref. 17]

Secondly, the ACO stated that her lack of knowledge concerning the findings and how those findings were developed, hampered her negotiation position. If the study had been done by the NAVPRO, the background would have been familiar to her. This weakened negotiation position was realized by the contractor, which compounded the difficulty of the negotiation efforts. [Ref. 17]

Finally, it was felt that the contractor did not like the intrusion into the company and therefore was very uncooperative with the team members. This was extended in part to the NAVPRO members and caused relations to decline

from the time the study started. None of the individuals interviewed wanted to be a part of another Overhead Should Cost study at any level again.

b. Lockheed Study

The feelings of those personnel interviewed at NAVPRO Lockheed were very similar to those expressed at Sperry. It was felt that the study was not well-planned, did not improve relations, and could have achieved the same results if performed by NAVPRO personnel. [Ref. 18]

The ACO noted that the Overhead Should Cost study lacked any real impact with the contractor. Recommendations that could easily be implemented by the contractor and which benefited his position, were done rather smoothly. Those recommendations the contractor felt were unreasonable, were simply not implemented. The ACO had a difficult time convincing the contractor to attempt implementation of these recommendations. [Ref. 18]

Overall, the Overhead Should Cost study was not effective in the minds of those NAVPRO individuals interviewed and would not be recommended in the future.

c. Hughes Study

The personnel interviewed at DCASPRO Hughes were very positive about the effectiveness and impact of the Overhead Should Cost performed.

Because the study was performed by DCASPRO personnel, the background to the analysis was readily available for negotiations, as well as the personnel who performed the analysis. Due to this, the negotiations went very smoothly and effectively. [Ref. 15]

Additionally, the ACO felt that the study was well-received by the contractor, due to the in-house effort and the contractor's positive attitude to the study. This positive feeling towards the study lessened the impact of the findings and made negotiations of the more difficult areas easier. [Ref. 15]

The individuals interviewed agreed that the Overhead Should Cost study, as performed, was very successful and could be done again, with similar results.

3. Contractor's Viewpoint

a. Sperry Study

In the opinion of the management representatives interviewed, the effectiveness of the Overhead Should Cost study performed at Sperry was greatly diminished by the lack of knowledge and clout of the ACO. By not being totally involved in the study, the ACO did not have the total scope of the analysis performed in each functional area. This became evident during negotiations and was exploited by the contractor to his benefit. [Ref. 19]

The major area of concern for the contractor was expressed by one interviewee, who stated that the Should Cost

study should include all of the costs, not just overhead. "Should Cost means the analysis of labor, material, and value added costs; not just overhead." [Ref. 19] He indicated that the Government should go beyond the overhead costs and make recommendations on the basis of the "total picture." [Ref. 19]

This position was the main complaint made by the individuals interviewed at Sperry. As far as they were concerned, the Government was being too specific in their analysis. They were trying to force cost cuts without taking the whole picture into consideration. This concern was the major impact of the study.

b. Lockheed Study

The management representative interviewed from Lockheed expressed nearly the same opinion as Sperry on the effectiveness and impact of the Overhead Should Cost study. He felt that the ACO lacked the support necessary to carry the Government's position during negotiations. He did feel that the ACO presented the Government's position well, despite a lack of in-depth knowledge of the analysis presented in the study. In some cases, the study examined areas previously analyzed by the NAVPRO. The interviewee questioned the Government need to re-analyze these areas. In his opinion, there was too much overkill in several areas of the study. [Ref. 20]

As in the Sperry study, the Lockheed representative felt the Government needed to address all of the costs associated with the pricing determination, not just the overhead costs. Along with this thought, the Government might also compare other divisions in the company to help establish the pricing agreement. [Ref. 20]

c. Hughes Study

As previously mentioned, management's view of the effects and impact of the Overhead Should Cost study performed at Hughes, changed dramatically over the period of performance of the contract.

At its inception and throughout its performance and negotiation, Hughes was very supportive of the study. In one interview with a key management representative at the time of the study, it was considered to be a source of recommendations that could prove to be very productive to the company. Therefore, management was eager to implement those findings they considered as beneficial to their future. [Ref. 21]

After a few years however, the business base for the company declined significantly, dramatically affecting the prices agreed to in the Overhead Should Cost study. Looking back at the agreement, management believed that they were pressured by the Government into agreeing to the recommendations of the study.

Interviews have indicated that the impact of the agreement negotiated by the contractor and the Government became quite significant. Due to the losses suffered by the contractor, there is a great deal of anger expressed towards the use of any Should Cost study. To quote one management representative: "If someone brought in a Should Cost proposal to me right now, I'd probably shoot him!"

H. SUMMARY

This chapter has addressed the responses to questions posed by this researcher to members of Government and contractor personnel involved in the Overhead Should Cost studies at the three contractors previously mentioned. The chapter has covered team makeup, relations fostered by the study, effects of the study on negotiations, motivation towards implementation of recommendations, follow-up considerations, and overall effectiveness and impact of the studies.

The following chapter will analyze these responses and their impact on the Should Cost concept.

V. ANALYSIS OF CRITICAL ISSUES

A. INTRODUCTION

This chapter presents the researcher's analysis of the issues critical to the Should Cost methodology. These issues will be presented from the topical areas developed from the questions posed during interviews and described in the previous chapters. The effects of each of the Overhead Should Cost studies will be analyzed in the areas of team organization, relationships, negotiations, implementation of recommendations, follow-up actions, and overall impact and effectiveness.

B. SHOULD COST TEAM ORGANIZATION

The organizational structure of the two Overhead Should Cost teams at Sperry and Lockheed were similar. In analyzing this organization, it appears that there was an emphasis on utilizing the knowledge base of the different Government agencies participating in the studies. The theory behind this organization was to have the Director and Deputy Director positions on both teams filled by representatives of the Government buying agency sponsoring the study. The team leaders in each of the functional areas consisted of personnel from other Government buying agencies, and the ACO from the parent NAVPRO. The team members consisted of personnel from other Government buying agencies, DCAA, and

personnel available at the NAVPRO. These personnel were disbursed throughout the functional areas in accordance with their respective expertise.

This organization left the ACO with the responsibility of only a portion of the study. The ACOs had a good understanding of the supporting documentation for the findings in the functional area that they directed. However, since the majority of the analysis in the other functional areas were performed by persons from other Government agencies, and these other analysts left shortly after completing their portion of the study, the ACOs had little knowledge of the techniques used in developing the supporting documentation for those functional areas. It is easy to see why both ACO's felt that they did not have a good grasp of all the findings that they were required to negotiate.

In contrast to this organizational makeup, was the organizational construction in the Hughes study. In this case, the ACO was more directly involved in the overall development of the functional areas and performance of the analysts. The ACO was given the title of Assistant Should Cost Director and was directly responsible for the development of findings from all of the functional area team leaders. Additionally, all of the team leaders were from the DCAS Region or in-house DCASPRO. This facilitated the availability of the team leaders during negotiations and gave the ACO stronger support during the negotiation process.

By being more intimately involved in the total analysis from the beginning, the ACO at Hughes was confident in his supporting documentation and was better able to support the findings presented in negotiations. The negotiations went more smoothly and the ACO was able to secure an agreement with the contractor in a relatively short period of time.

In analyzing the studies at Sperry and Lockheed, it appears that the organization of each study was drawn up without regard for the negotiations or the ACO's negotiating position. The organizational pre-planning did not address the effective use of in-house NAVPRO personnel, when developing the teams for each of the functional areas in the studies. By not utilizing the in-house NAVPRO personnel in positions of greater authority and not giving the ACO a position of greater involvement, the effectiveness of the ACO in leading the negotiations was greatly diminished.

C. RELATIONSHIPS FOSTERED BY THE STUDIES

As previously noted, the makeup of the teams that performed the Overhead Should Cost studies at Sperry and Lockheed consisted of a large number of individuals from Government buying agencies outside of the on-site NAVPROS. This use of outside analysts caused many problems at both contractor sites that directly effected the relations between the contractor and Government representatives.

In theory, a Should Cost study should be performed by a team of analysts from outside of the parent Government Contract Administration entity. This outside analysis is designed to give the Government an in-depth understanding of the contractor's cost elements, without putting an additional workload on the on-site Government entity. This theory also suggests that the outside analysis will dig deeper and be less biased. The contractor would therefore be more receptive to the information supplied by this study, as it would be more exact and thorough in presenting cost savings. The relations between the contractor and the Government would therefore be improved, as the contractor would have a better understanding of the Government's requirements. This researcher was therefore surprised to find that the contractors were less than receptive to the findings and displayed a negative attitude towards the Government.

At both Sperry and Lockheed, the contractor took the position that the findings developed by the analysts from the Government buying agencies were not creditable, due to the analysts' lack of knowledge of the contractor's organizational and accounting systems. The contractors claimed that the analysts were too critical of a system that they did not work with and were not flexible in their assessment of deficiencies. They became less flexible and willing to work with the Government, creating a non-

cooperative attitude, and thereby deteriorating relations between the two parties.

Compounding this situation, contractor personnel continually had to brief new analysts in most functional areas, as the Government continually replaced personnel throughout the study. The contractor resented having to bring these new analysts up-to-speed, before they could begin their analysis. Sperry and Lockheed both viewed the study as more of a hindrance than a help.

In this researcher's analysis, there was some validity in the contractor's statement that the analysts did not understand or appreciate the contractor's organization. Outside analysts do not fully understand the contractor's operation and might not take all circumstances into consideration when developing their findings. That can be the outside analyst's strength, as they will normally stick to the facts and not digress outside of a cost area. However, because the majority of the analysts were from outside of the on-site NAVPRO, they would not be concerned with improving relations with the contractor. They could afford to take a harder line in their analysis and thereby not take the contractor's concerns into consideration. These analysts performed their work, summarized their findings, made recommendations, dropped the whole thing in the ACO's lap to negotiate, and went home.

In support of this analysis is the Hughes study. In this case, the contractor did not cite major disagreements with the analysts' procedures in any area. Because the majority of the analysts participating in the study were from the local DCASR and DCASPRO, the contractor could not claim that the analysts did not understand their operations or accounting system. The analysts were well-acquainted with the contractor's operations and related well with the contractor during the study. Therefore, the claims of analysts not being flexible and too critical of the contractor's systems, did not occur. Relationships between the contractor and the DCASPRO were enhanced by the increased working relationships fostered by the study.

D. NEGOTIATION ANALYSIS

In analyzing the effectiveness of negotiations at each of the contractor sites, this researcher looked at the problems encountered during negotiations at Sperry and Lockheed, and compared the situations with the successful negotiations that occurred at Hughes.

The negotiations that took place at Sperry and Lockheed had similar problem areas. In both instances, the ACO's had little support from on-site personnel and felt less than knowledgeable with the conclusions of the studies. This researcher's analysis showed that the contractors were well aware of the ACO's situation and used this to their

advantage. They continually challenged the analysts' findings and the ACO's knowledge of specific findings. They purposely took a much harder stand on the more difficult personnel issues, knowing that the ACO would be hard pressed to achieve the Government's position.

This strategy was compounded by Sperry, as they argued that many recommendations could not be applied to their new organization, without further study and analysis. Additionally, the contractor was never shown the actual analysis of the findings at anytime before or during the negotiations. This caused the contractor to distrust the recommendations that much more.

In this researcher's analysis, the ACOs at Sperry and Lockheed had no choice but to use each study's findings as a "Big Stick" in order to achieve many of the recommendations. Without the proper support, the study itself would have to be used as a negotiation tool. This negotiation strategy used by the ACOs, reinforced the contractor's view that the study was being "forced down their throats" by the Government.

Analysis of the Hughes negotiations indorses a smooth transaction process. This was due primarily to the successful performance of the study by the DCASPRO. The analysts were on-hand to assist the ACO with the negotiations. Many of the recommendations had been discussed with the contractor before negotiations began, thereby assuring a smooth negotiation.

Additionally, by dealing with familiar personnel during the study, the contractor felt that the recommendations should be in his best interest. He was therefore more flexible and willing to give concessions in the more difficult areas.

E. IMPLEMENTATION OF RECOMMENDATIONS

Motivating the contractor to implement recommendations was a difficult task for the ACOs at Sperry and Lockheed, while the ACO at Hughes found little problem in getting Hughes to implement recommendations.

The Government assumed that the contractors would be internally motivated to implement the recommendations of the studies. Being in a competitive industry, any contractor should be willing to take cost-effective recommendations aboard. Sperry and Lockheed proved otherwise.

Analysis shows that both contractors believed in the conceptual theory of the Should Cost study. They were willing to take the non-personnel recommendations into immediate consideration, but the recommendations concerning personnel cutbacks were hard fought. Neither felt any internal motivation to cut personnel costs, as these costs were the core of their operation. Both knew that much of their overhead rates were based upon the labor rates, fringe benefits, and other personnel related items. Neither contractor was willing to take cuts in these valuable areas.

Sperry had little motivation to implement any of the recommendations, as they wanted to have as little change as possible during the two-company merger. Improvements in the operation of the facilities could be easily absorbed into the new corporation, but personnel rate changes may cause problems with the merger.

Lockheed had a similar reaction to cutting personnel related costs. Being a dual cognizance plant and generally a sole source for the submarine missile systems, Lockheed had little competitive motivation. Therefore, they were very adverse to implementing personnel cutbacks.

The ACOs at Sperry and Lockheed were aware of the lack of internal motivation present in the contractors. All they could do was be as persuasive as possible in the personnel areas, citing the study as support. This, of course, was seen as a strong arm tactic by the contractors, which led to more hard feelings between the parties and increased difficulties in negotiations.

The successful implementation of recommendations at Hughes can be attributed to a stronger internal motivation by the contractor, as well as the smooth operation of the study itself. This researcher's analysis indicates that Hughes was far more interested in improving its competitive position in the industry, than were Sperry or Lockheed. They were more willing to gamble with the Government's recommendations, in

order to gain ground on their competitors and perhaps secure additional Government contracts.

F. FOLLOW-UP ACTIONS

There was no in-depth follow-up action taken by the Government in any of the three studies with the exception of a small three day follow-up at Lockheed, approximately one year after the completion of the study.

Analysis indicates that the Government does not have the time or the personnel to perform in-depth follow-up actions. However, the Government could consider some sort of follow-on be performed by the in-plant Government Contract Administration activity.

To assist the ACO during the negotiations, the Government could arrange for one or two of the key analysts to return to the plant to assist the ACO in negotiations. This would help the ACO with the background support needed and give him more clout to negotiate the tougher recommendations.

Another smaller follow-up effort that the Government could do, would be to meet with the contractor at some later time, after completion of the study. This would give the contractor the opportunity to express his opinions on the effectiveness of the study. This information could then be used in future Should Cost efforts.

G. OVERALL IMPACT AND EFFECTIVENESS

The overall impact and effectiveness of the three studies was perceived differently at the various levels of Government involvement. Based on analysis, this researcher can conclude that neither the impact nor the effectiveness were as great as the Government believed.

Although there were many inefficiencies and areas for improvement identified, not all of the recommendations were implemented by the contractors. Additionally, one can argue that many of these areas could have been identified by normal internal analysis at the Contract Administration level. Exactly which findings would have been identified through normal internal audit is difficult to determine. However, this determination is not key to the impact of the studies.

The findings and recommendations presented by the Government aided all three contractors, by pointing out deficiencies in their operations, that would make them more efficient. Whether the contractor agreed to the implementation of those recommendations or not, the Government could point to those findings as making the contractor more efficient and thereby cost effective. In this sense, the studies had a positive impact and were effective.

The impact of the studies on the contractors went beyond the apparent cost considerations. In all three of the studies, the contractor was left with ill feelings towards

the Government, in respect to the Should Cost process. Even the Hughes study caused feelings of opposition towards the Government, after the contractor's business base deteriorated. None of the studies improved relations between the Government and contractor. In fact, due to the lack of Government support, the ACOs may have lost future negotiating position and Government Contract Administration personnel at these sites may find the working relations with contractor personnel strained.

This negative impact of the studies may be related to the future effectiveness of the Government at these activities. In this respect then, the Should Cost studies did not provide a positive impact and were not effective.

In all of the studies, the contractors voiced the opinion that the Government should not be limiting the study to the overhead area. All of the costs associated with the operation of the company should be factored into the study in order to get the total effect of all costs in the overhead area.

In this researcher's analysis, the claim that all of the costs should be considered for a Should Cost study has some merit. By including all costs, the Government would get a total picture of the contractor's operation. But that is not what the Government wants, when it is looking at the overhead area. The Government is interested in the overhead costs

only, as this area is highly susceptible to contractor cost over-run.

Based on this analysis, the studies were effective in analyzing and identifying problem areas in the overhead cost area.

H. SUMMARY

This chapter has addressed critical issues developed in the researcher's analysis of the three Overhead Should Cost studies. The final chapter presents conclusions, recommendations, areas for future study, and answers to the primary and secondary research questions.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

The purpose of this thesis was to analyze the effectiveness of the Overhead Should Cost study, as it relates to three studies performed at three separate contractor sites. This information can be used as a tool for developing future Should Cost studies, in the area of overhead costs, or any specific cost areas.

To accomplish this analysis, this researcher examined the three studies performed and interviewed key Government and contractor personnel involved in each study. Government and contractor positions on the effectiveness of the studies have been presented in the previous chapters, as well as this researcher's analysis of the key issues that affect the Should Cost methodology.

This chapter will present conclusions derived from the thesis and recommendations for improving the Should Cost process. Areas for future research will then be presented.

B. CONCLUSIONS

1. In two of the three Overhead Should Cost studies, the Should Cost team organization did not allow the ACOs enough responsibility to ensure an effective negotiation position.

Both ACOs expressed that their unfamiliarity with the studies hampered their efforts during negotiations, to secure

many of the recommendations that the studies presented. The one ACO that was involved as the Shoud Cost study assistant director, had a much stronger understanding of the analysis behind the recommendations presented, and had little difficulty during negotiations.

2. Relations between the Government and the contractors were not improved by performing the studies.

In two of the three studies, the use of Government personnel from activities other than the on-site Contract Administration activity, led to a decline in the relations between the Government and contractor personnel. As shown in Chapter IV of this thesis, contractor personnel took offense to "outsiders" analyzing their activity and recommending corrective action for discrepancies in areas that the analysts were unfamiliar with. Additionally, contractors cited Government pressure and lack of ACO support as other detriments to Government and contractor relations.

3. Negotiations were hampered by the Government's use of the studies as a "Big Stick" to pressure the contractors to implement recommendations.

In all of the studies, the contractors expressed the belief that the Government used the studies to pressure the contractors to implement recommendations, without proper supporting documentation. This pressure caused the contractors to take stronger positions on several issues and

hampered the normal give-and-take bargaining sessions that are beneficial to successful negotiations.

4. In two of the three studies, the contractors displayed little motivation to implement recommendations, causing an additional onus upon the ACOs to successfully negotiate the studies.

Analysis showed that neither of the two contractors noted were worried about improving their position in the industry. One was merging with another Defense related company and the other was a sole source in a very specialized procurement of Defense material. This lack of motivation towards each studies' recommendations, made negotiating the recommendations very difficult for the ACO. The one contractor who was internally motivated to improve its position in the industry, readily agreed to implementing most of the recommendations of their study, providing for a smooth negotiation.

5. In two of the three studies, follow-on analysis was not performed by the Government.

In the one instance that a follow-on analysis was performed, both the ACO and contractor agreed that the follow-on showed support for the Should Cost program and gave the contractor an additional outlet to vent his opinion of the study to the Government.

6. The three Overhead Should Cost studies performed may have hampered future relations between on-site Government Contract Administration Personnel and the contractor.

Due to increased bitterness towards the Government over the practicality of the studies, ACO and Government personnel may experience future problems relating to and working with management of these companies. The solid working relationships developed between the two parties has been strained by the studies.

C. RECOMMENDATIONS

1. When considering future Should Cost efforts, consider using the in-house Government Contract Administration activity as the main source for team selection.

Given the time and support of other local Government agencies, in-house performance of Should Cost studies can be more efficient (through greater contractor cooperation), less time consuming, and save the Government additional travel and accommodation expenses. Additionally, relations between the Government and the contractor should not be adversely affected. Consideration should be given to the workload requirements of the in-house agency and include local Government agencies for support.

2. Give the ACO or whoever will be negotiating the study, a more active role in the determination of those findings.

Involving the ACO, or whoever has responsibility for negotiating the study's findings, from the beginning of the study is vital to ensuring his full comprehension of those findings. Given the total picture of how the findings were developed, as well as analytical documentation, the negotiator will find his position enhanced, and lead to smoother implementation of the recommendations of the study.

3. Establish a follow-up visit by personnel from the activity sponsoring the study within one year after completion of the study.

A follow-on visit will show Government support for the study, ensure a smooth transition of recommendations into implementation by the contractor, and give the contractor a channel to express his views on the success or failure of the study. This information can be used to enhance future studies.

D. ANSWERS TO THE SUBSIDIARY RESEARCH QUESTIONS:

1. Were selected Overhead Should Cost studies performed and negotiated by the Government in the most effective manner?

The areas that were significant in determining this question were team selection and ACO support during negotiations. The teams selected were effective in identifying deficiencies in the contractor's operation, and making recommendations to correct inefficiencies and improve

contractor operation. Negotiations, however, could have been better supported by the Government, thereby increasing the ACO's effectiveness in achieving the studies objectives.

2. What has been the effect of the studies on the relations between the Government and the contractor?

Relations between the Government and the contractor were not improved by the performance of the studies. In all three of the cases, the studies caused an additional strain on possible future associations between the Government and contractor management.

3. How might the Should Cost studies be improved as an analytical tool in support of contract negotiation?

This question is answered in the Recommendation section of this Chapter. The key areas are: consideration of in-house studies vice the traditional team selection criteria, more ACO involvement, and follow-on study consideration.

E. ANSWER TO THE PRIMARY RESEARCH QUESTION

How effective has the Government been in the selection and execution of Overhead Should Cost studies?

The answer to this question is found in Chapter V. The effectiveness of the selection and execution of the Overhead Should Cost studies can be expressed in two general areas. The Government has been fairly effective in executing the studies at the sites selected. The studies effectively

identified contractor inefficiencies and recommended changes to improve their operation. However, the studies could have been performed more effectively, had consideration been given to the negotiation process at the conclusion of the studies.

F. RECOMMENDATIONS FOR FUTURE STUDY

1. What should the ACO's role be during the Should Cost process?

The ACO is normally the individual charged with the responsibility of negotiating the recommendations after the Should Cost study has been completed. At what level should the ACO be initiated into the development of the study? What authority should be given and how involved in the development of the findings should he be?

2. What are the contractor's responses to specific Should Cost recommendations?

How does the contractor base his negotiation position relative to the recommendations of a Should Cost study? Why were certain recommendations implemented and others not?

3. Should the Navy establish a Should Cost team to perform all future Should Cost efforts?

Organizing a Should Cost team is a difficult and time consuming effort. This study could look into the costs and benefits of establishing a regional or a national Should Cost team, designed specifically to perform Should Cost studies at various contractor sites.

LIST OF REFERENCES

1. Costello, Robert B., "Reforming and revitalizing defense acquisition," Defense Management Journal, Second and Third Quarter, 1987.
2. Defense Systems Management College, Our Management Reform Effort, January 1985.
3. Headquarters, U.S. Army Material Command, "Should Cost" Analysis Guide, ACMP 715-7, May 1972.
4. Department of Defense, Office of the Assistant Inspector General for Auditing, Report on the Audit of the DoD Should Cost Program, Report No. 85-120, 26 September 1985.
5. Williams, R. L., A Review of the "Should Cost" Process and Management Issues of the Process, Master's Thesis, Naval Postgraduate School, Monterey, California, December 1985.
6. Department of Defense, Federal Acquisition Regulations, 1 April 1987.
7. Ebert, W. V., Negotiation of Contractor's Overhead Costs, U.S. Air Force Air War College, Maxwell Air Force Base, Alabama, April 1978.
8. Deputy Secretary of Defense, Memorandum for the Secretaries of the Military Departments, 31 December 1984.
9. Sperry Corporation, Navy Overhead Should Cost Study, Executive Summary, December 1986.
10. Lockheed Missiles and Space Company, Navy Overhead Should Cost Study. Executive Summary, 1986.
11. Defense Contract Administration Region, Los Angeles, In-Depth Should Cost Indirect Review, Executive Summary, March 1987.
12. Interview between Mr. J. Ford, Office of the Assistant Secretary of the Navy for Shipboard and Logistics, Washington, DC, and the author, 24 August 1988.

13. Interview between D. Allen, Captain, SC, USN, Naval Air Systems Command, Washington, DC, and the author, 24 August 1988.
14. Telephone conversation between D. McKinnon, Rear Admiral, SC, USN, Defense Logistic Agency, and the author, 9 August 1988.
15. Interview between M. Yancy, Defense Contract Administration Services Plant Representative Office (NAVPRO), Hughes, Fullerton, California, and the author, 15 September 1988.
16. Interview between J. Trigg, Defense Contract Administration Services Plant Representative Office (NAVPRO), Hughes, Fullerton, California, and the author, 15 September 1988.
17. Interview between P. Matura, Naval Plant Representative Office (NAVPRO), Sperry Corporation, and the author, 25 August 1988.
18. Interview between R. Doty, Naval Plant Representative Office (NAVPRO), Lockheed Missiles and Space Company, and the author, 1 September 1988.
19. Interview between J. Carrow, Sperry Corporation, and the author, 25 August 1988.
20. Interview between P. Brainager, Lockheed Missiles and Space Company, and the author, 1 September 1988.
21. Interview between D. Straube, Hughes, Fullerton, and the author, 15 September 1988.
22. Telephone conversation between E. Williams, Naval Air Systems Command, and the author, 11 August 1988.

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